



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/599,239

07/08/2008

Tadashi Nakamura

49288.3800

6149

52044

7590

08/03/2011

SNELL & WILMER L.L.P. (Panasonic)

600 ANTON BOULEVARD

SUITE 1400

COSTA MESA, CA 92626

EXAMINER

SASINOWSKI, ANDREW

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

08/03/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/599,239	NAKAMURA ET AL.	
	Examiner	Art Unit	
	ANDREW SASINOWSKI	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/8/2006, 12/4/2008</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first instruction section, second instruction section, third instruction section, fourth instruction section and fifth instruction section must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 6 is objected to because of the following informalities: claim 6 recites a "fourth instruction section" and a "fifth instruction section". This appears to be a typographical error of "fourth instruction step" and a "fifth instruction step". Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8 – 9 and 18 – 19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 8 – 9 and 18 – 19 each recite "A program for executing a...procedure". Since the programs are not limited to storage on a non-transitory structure the claims are interpreted to be broad enough to include non-statutory embodiments.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 - 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasaki et. al. [2004/0013059].

Regarding claim 1, Sasaki teaches:

- A recording apparatus **[fig. 2]** for recording information on a write-once recording medium **[fig. 1, §0122]**,
- the write-once recording medium including a disk management information area **[fig. 1, “lead-in”]** and a volume space **[FIG. 1, “volume space”]**,
- the recording apparatus comprising: a host apparatus **[fig. 2, 201]**;
- and a drive apparatus **[205]**,
- the host apparatus including: a first instruction section for instructing the drive apparatus to allocate at least one first track and at least one second track to the volume space **[211, note allocated area 131. Also note §0131]**;
- a second instruction section for instructing the drive apparatus to record a file on the at least one first track **[item 213]**;
- a third instruction section for instructing the drive apparatus to record a file structure on the at least one second track, the file structure managing the file **[item 261]**;
- a fourth instruction section for instructing the drive apparatus to record a virtual allocation table structure in the volume space, the virtual allocation

table structure managing a recording location of the file structure **[item 212]**;

- and a fifth instruction section for instructing the drive apparatus to record track management information in the disk management information area, the track management information managing the at least one first track and the at least one second track **[item 251]**,
- the drive apparatus including: a head section for allocating the at least one first track and the at least one second track to the volume space, recording the file on the at least one first track, recording the file structure on the at least one second track, recording the virtual allocation table structure in the volume space and recording the track management information in the disk management information area **[item 234, note item 234 performs all of the recording on the optical disc]**;
- and a control section for controlling the head section so as to allocate the at least one first track and the at least one second track to the volume space, record the file on the at least one first track, record the file structure on the at least one second track, record the virtual allocation table structure in the volume space and record the track management information in the disk management information area **[item 231]**.

Regarding claim 2, Sasaki teaches:

- A recording apparatus according to claim 1 **[see above]**,

- wherein the control section **[item 231]** controls the head section so as to record the virtual allocation table structure in an area subsequent to a last recorded location of the file of the at least one first track **[note since VAT section is recorded subsequent to the main file area (fig. 1, VAT 156), the control section must inherently control the head to perform the above described instruction]**.

Regarding claim 3, Sasaki teaches:

- A recording apparatus according to claim 1 **[see above]**,
- wherein the third instruction section further instructs the drive apparatus to record predetermined information on the at least one second track **[see control file section 148 in fig. 1]**,
- and the control section controls the head section so as to record the predetermined information of the file structure on the at least one second track **[note since predetermined information is recorded in the designated area by the head section, the control section must inherently control the head to perform the above described writing step]**.

Regarding claim 4, Sasaki teaches:

- A host apparatus included in a recording apparatus for recording information on a write-once recording medium **[fig. 2]**,

- the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,
- the recording apparatus further including: a drive apparatus **[205]** for recording the information on the write-once recording medium,
- the host apparatus including: a first instruction section for instructing the drive apparatus to allocate at least one first track and at least one second track to the volume space **[211, note allocated area 131. Also note §0131]**;
- a second instruction section for instructing the drive apparatus to record a file on the at least one first track **[213]**;
- a third instruction section for instructing the drive apparatus to record a file structure on the at least one second track, the file structure managing the file **[261]**;
- a fourth instruction section for instructing the drive apparatus to record a virtual allocation table structure in the volume space, the virtual allocation table structure managing a recording location of the file structure **[212]**;
- and a fifth instruction section for instructing the drive apparatus to record track management information in the disk management information area, the track management information managing the at least one first track and the at least one second track **[251]**.

Regarding claim 5, Sasaki teaches:

- A recording apparatus according to claim 4 **[see above]**,
- wherein the third instruction section further instructs the drive apparatus to record predetermined information on the at least one second track **[see control file section 148 in fig. 1]**,

Regarding claim 6, Sasaki teaches:

- A recording method for recording information on a write-once recording medium, the write-once recording medium including a disk management information area and a volume space, the recording method comprising: a first instruction step of instructing to allocate at least one first track and at least one second track to the volume space **[performed by item 211]**;
- an allocation step of allocating the at least one first track and the at least one second track to the volume space **[211]**;
- a second instruction step of instructing to record a file on the at least one first track **[performed by item 213]**;
- a first recording step of recording the file on the at least one first track **[213]**;
- a third instruction step of instructing to record a file structure on the at least one second track, the file structure managing the file **[261]**;
- a second recording step of recording the file structure on the at least one second track **[261]**;

- a fourth instruction section of instructing to record a virtual allocation table structure in the volume space, the virtual allocation table structure managing a recording location of the file structure **[212]**;
- a third recording step of recording the virtual allocation table structure in the volume space **[212]**;
- a fifth instruction section of instructing to record track management information in the disk management information area, the track management information managing the at least one first track and the at least one second track **[251]**;
- and a fourth recording step of recording the track management information in the disk management information area **[251]**.

Regarding claim 7, Sasaki teaches:

- An instruction method executed by a host apparatus included in a recording apparatus for recording information on a write-once recording medium, the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,
- the instruction method comprising: a first instruction step of instructing to allocate at least one first track and at least one second track to the volume space **[211]**;
- a second instruction step of instructing to record a file on the at least one first track **[213]**;

- a third instruction step of instructing to record a file structure on the at least one second track, the file structure managing the file **[261]**;
- a fourth instruction step of instructing to record a virtual allocation table structure in the volume space, the virtual allocation table structure managing a recording location of the file structure **[212]**;
- and a fifth instruction step of instructing to record track management information in the disk management information area, the track management information managing the at least one first track and the at least one second track **[251]**.

Regarding claim 8, Sasaki teaches:

- A program **[note (for example) §0074, wherein it is taught that the hardware in fig. 2 is driven by a microprocessor running control software]** for executing a recording procedure by a recording apparatus for recording information on a write-once recording medium,
- the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,
- the recording procedure including: a first instruction step of instructing to allocate at least one first track and at least one second track to the volume space **[211]**;
- an allocation step of allocating the at least one first track and the at least one second track to the volume space **[performed by 211]**;

Art Unit: 2627

- a second instruction step of instructing to record a file on the at least one first track **[213]**;
- a first recording step of recording the file on the at least one first track **[213]**;
- a third instruction step of instructing to record a file structure on the at least one second track, the file structure managing the file **[261]**;
- a second recording step of recording the file structure on the at least one second track **[261]**;
- a fourth instruction step of instructing to record a virtual allocation table structure in the volume space, the virtual allocation table structure managing a recording location of the file structure **[212]**;
- a third recording step of recording the virtual allocation table structure in the volume space **[212]**;
- a fifth instruction step of instructing to record track management information in the disk management information area, the track management information managing the at least one first track and the at least one second track **[251]**;
- and a fourth recording step of recording the track management information in the disk management information area **[251]**.

Regarding claim 9, Sasaki teaches:

- A program for executing an instruction procedure by a host apparatus included in a recording apparatus for recording information on a write-once recording medium **[note (for example) §0074, wherein it is taught that the hardware in fig. 2 is driven by a microprocessor running control software]**,
- the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,
- the instruction procedure including: a first instruction step of instructing to allocate at least one first track and at least one second track to the volume space **[211]**;
- a second instruction step of instructing to record a file on the at least one first track **[213]**;
- a third instruction step of instructing to record a file structure on the at least one second track, the file structure managing the file **[261]**;
- a fourth instruction step of instructing to record a virtual allocation table structure in the volume space, the virtual allocation table structure managing a recording location of the file structure **[212]**;
- and a fifth instruction step of instructing to record track management information in the disk management information area, the track management information managing the at least one first track and the at least one second track **[251]**.

Regarding claim 10, Sasaki teaches:

- An integrated circuit included in a recording apparatus for recording information on a write-once recording medium **[note (for example) §0074, wherein it is taught that the hardware in fig. 2 is driven by a microprocessor running control software]**,
- the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,
- the recording apparatus further including: a drive apparatus **[205]** for recording the information on the write-once recording medium,
- the integrated circuit including: a first instruction section for instructing the drive apparatus to allocate at least one first track and at least one second track to the volume space **[211]**; a second instruction section for instructing the drive apparatus to record a file on the at least one first track **[213]**;
- a third instruction section for instructing the drive apparatus to record a file structure on the at least one second track, the file structure managing the file **[261]**;
- a fourth instruction section for instructing the drive apparatus to record a virtual allocation table structure in the volume space, the virtual allocation table structure managing a recording location of the file structure **[212]**;
- and a fifth instruction section for instructing the drive apparatus to record track management information in the disk management information area,

the track management information managing the at least one first track and the at least one second track **[251]**.

Regarding claim 11, Sasaki teaches:

- A reproduction apparatus **[fig. 2]** for reproducing information from a write-once recording medium,
- the write-once recording medium including a disk management information area and a volume space **[fig. 1]**, at least one first track and at least one second track being allocated to the volume space **[fig. 1, performed by 211]**,
- a file being recorded on the at least one first track **[performed by 213]**,
- a file structure which manages the file being recorded on the at least one second track **[performed by 261]**,
- a virtual allocation table structure which manages a recording location of the file structure being recorded in the volume space **[note VAT area in fig. 1]**,
- and track management information which manages the at least one first track and the at least one second track being recorded in the disk management information area **[performed by 251]**,
- the reproduction apparatus comprising: a host apparatus **[201]**;
- and a drive apparatus **[205]**,

Art Unit: 2627

- the host apparatus including a first instruction section for instructing the drive apparatus to reproduce the track management information from the disk management information area **[211]**;
- a second instruction section for instructing the drive apparatus to reproduce the virtual allocation table structure from the volume space based on the track management information **[213]**;
- a third instruction section for instructing the drive apparatus to reproduce the file structure from the at least one second track **[261]**;
- and a fourth instruction section for instructing the drive apparatus to reproduce the file from the at least one first track **[212]**,
- the drive apparatus including a head section for reproducing the track management information from the disk management information area, reproducing the virtual allocation table structure from the volume space, reproducing the file structure from the at least one second track and reproducing the file from the at least one first track **[performed by 234]**;
- and a control section for controlling the head section so as to reproduce the track management information from the disk management information area, reproduce the virtual allocation table structure from the volume space, reproduce the file structure from the at least one second track and reproduce the file from the at least one first track **[231]**.

Regarding claim 12, Sasaki teaches:

- A reproduction apparatus according to claim 11, wherein the virtual allocation table structure is recorded in an area subsequent to a last recorded location of the file of the at least one first track **[note fig. 1]**;
- and the second instruction section instructs the drive apparatus to reproduce the virtual allocation table structure from the area subsequent to the last recorded location of the file **[see control file section 148 in fig. 1]**.

Regarding claim 13, Sasaki teaches:

- A reproduction apparatus according to claim 11, wherein predetermined information of the file structure is further recorded on the at least one second track **item 251]**,
- and the third instruction section instructs the drive apparatus to reproduce the predetermined information from the at least one second track **[251]**.

Regarding claim 14, Sasaki teaches:

- A host apparatus included in a reproduction apparatus for reproducing information from a write-once recording medium **[fig. 2]**,
- the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,
- at least one first track and at least one second track being allocated to the volume space **[as performed by item 211]**,

Art Unit: 2627

- a file being recorded on the at least one first track **[performed by 213]**,
- a file structure which manages the file being recorded on the at least one second track **[performed by 261]**,
- a virtual allocation table structure which manages a recording location of the file structure being recorded in the volume space **[fig. 1, note VAT area]**,
- and track management information which manages the at least one first track and the at least one second track being recorded in the disk management information area **[performed by 251]**,
- the reproduction apparatus further including: a drive apparatus for reproducing the information from the write-once recording apparatus **[234]**,
- the host apparatus including, a first instruction section for instructing the drive apparatus to reproduce the track management information from the disk management information area **[211]**;
- a second instruction section for instructing the drive apparatus to reproduce the virtual allocation table structure from the volume space based on the track management information **[213]**;
- a third instruction section for instructing the drive apparatus to reproduce the file structure from the at least one second track **[261]**;
- and a fourth section for instructing the drive apparatus to reproduce the file from the at least one first track **[212]**.

Regarding claim 15, Sasaki teaches:

- A reproduction apparatus according to claim 14, wherein predetermined information of the file structure is further recorded on the at least one second track **[control file section 148]**,
- and the third instruction section instructs the drive apparatus to reproduce the predetermined information from the at least one second track **[note since predetermined information is recorded in the designated area by the head section, the control section must inherently control the head to perform the above described writing step]**.

Regarding claim 16, Sasaki teaches:

- A reproduction method for reproducing information from a write-once recording medium **[performed by fig. 2]**, the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,
- at least one first track and at least one second track being allocated to the volume space **[performed by 211]**,
- a file being recorded on the at least one first track **performed by 213]**,
- a file structure which manages the file being recorded on the at least one second track **[performed by 261]**,

Art Unit: 2627

- a virtual allocation table structure which manages a recording location of the file structure being recorded in the volume space **[fig. 1, VAT area]**,
- and track management information which manages the at least one first track and the at least one second track being recorded in the disk management information area **[fig. 1, space management area]**,
- the reproduction method comprising: a first instruction step of instructing to reproduce the track management information from the disk management information area **[item 251]**;
- a first reproduction step of reproducing the track management information from the disk management information area **[251]**;
- a second instruction step of instructing to reproduce the virtual allocation table structure from the volume space based on the track management information **[215]**;
- a second reproduction step of reproducing the virtual allocation table structure from the volume space **[215]**;
- a third instruction step of instructing to reproduce the file structure from the at least one second track **[262]**;
- a third reproduction step of reproducing the file structure from the at least one second track **[262]**; a fourth instruction step of instructing to reproduce the file from the at least one first track **[216]**; and a fourth reproduction step of reproducing the file from the at least one first track **[216]**.

Regarding claim 17, Sasaki teaches:

- An instruction method executed by a host apparatus included in a reproduction apparatus for reproducing information from a write-once recording medium, the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,
- at least one first track and at least one second track being allocated to the volume space **[fig. 1]**,
- a file being recorded on the at least one first track **[item 213]**,
- a file structure which manages the file being recorded on the at least one second track **[item 261]**,
- a virtual allocation table structure which manages a recording location of the file structure being recorded in the volume space **[item 212]**,
- and track management information which manages the at least one first track and the at least one second track being recorded in the disk management information area **[item 251]**,
- the instruction method comprising: a first instruction step of instructing to reproduce the track management information from the disk management information area **[252]**;
- a second instruction step of instructing to reproduce the virtual allocation table structure from the volume space based on the track management information **[215]**;

- a third instruction step of instructing to reproduce the file structure from the at least one second track **[262]**;
- and a fourth step of instructing to reproduce the file from the at least one first track **[216]**.

Regarding claim 18, Sasaki teaches:

- A program for executing a reproduction procedure by a reproduction apparatus for reproducing information from a write-once recording medium, the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,
- at least one first track and at least one second track being allocated to the volume space **[fig. 1]**,
- a file being recorded on the at least one first track **[allocated area 131]**,
- a file structure which manages the file being recorded on the at least one second track **[latest file structure area, fig. 1]**,
- a virtual allocation table structure which manages a recording location of the file structure being recorded in the volume space **[VAT area]**,
- and track management information which manages the at least one first track and the at least one second track being recorded in the disk management information area **[space management area, fig. 1]**,

Art Unit: 2627

- the reproduction procedure including: a first instruction step of instructing to reproduce the track management information from the disk management information area **[252]**;
- a first reproduction step of reproducing the track management information from the disk management information area **[252]**;
- a second instruction step of instructing to reproduce the virtual allocation table structure from the volume space based on the track management information **[215]**;
- a second reproduction step of reproducing the virtual allocation table structure from the volume space **[215]**;
- a third instruction step of instructing to reproduce the file structure from the at least one second track **[262]**;
- a third reproduction step of reproducing the file structure from the at least one second track **[262]**;
- a fourth instruction step of instructing to reproduce the file from the at least one first track **[216]**;
- a fourth reproduction step of reproducing the file from the at least one first track **[216]**.

Regarding claim 19, Sasaki teaches:

- A program for executing an instruction procedure by a host apparatus included in a reproduction apparatus for reproducing information from a

write-once recording medium, the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,

- at least one first track and at least one second track being allocated to the volume space **[fig. 1]**,
- a file being recorded on the at least one first track **by item 213]**,
- a file structure which manages the file being recorded on the at least one second track **[by item 261]**,
- a virtual allocation table structure which manages a recording location of the file structure being recorded in the volume space **[by item, 212]**,
- and track management information which manages the at least one first track and the at least one second track being recorded in the disk management information area **[by item 251]**,
- the instruction procedure including: a first instruction step of instructing to reproduce the track management information from the disk management information area **[252]**;
- a second instruction step of instructing to reproduce the virtual allocation table structure from the volume space based on the track management information **[215]**;
- a third instruction step of instructing to reproduce the file structure from the at least one second track **[262]**;
- and a fourth step of instructing to reproduce the file from the at least one first track **[216]**.

Regarding claim 20, Sasaki teaches:

- An integrated circuit **[note (for example) §0074, wherein it is taught that the hardware in fig. 2 is driven by a microprocessor running control software]**, included in a reproduction apparatus for reproducing information from a write-once recording medium, the write-once recording medium including a disk management information area and a volume space **[fig. 1]**,
- at least one first track and at least one second track being allocated to the volume space **[fig. 1]**,
- a file being recorded on the at least one first track **[213]**,
- a file structure which manages the file being recorded on the at least one second track **[261]**,
- a virtual allocation table structure which manages a recording location of the file structure being recorded in the volume space **[212]**,
- and track management information which manages the at least one first track and the at least one second track being recorded in the disk management information area **[251]**,
- the reproduction apparatus further including: a drive apparatus for reproducing the information from the write-once recording medium **[205]**,

Art Unit: 2627

- the integrated circuit including a first instruction section for instructing the drive apparatus to reproduce the track management information from the disk management information area **[252]**;
- a second instruction section for instructing the drive apparatus to reproduce the virtual allocation table structure from the volume space based on the track management information **[215]**;
- a third instruction section for instructing the drive apparatus to reproduce the file structure from the at least one second track **[262]**;
- and a fourth section for instructing the drive apparatus to reproduce the file from the at least one first track **[216]**.

Regarding claim 21, Sasaki teaches:

- A write-once recording medium **[fig. 1]** structured so as to record information thereon, the write-once recording medium comprising: a disk management information area **[“lead-in”]**;
- and a volume space **[“volume space”]**,
- the volume space is structured such that the at least one first track and the at least one second track are allocated to the volume space **[note area 131]**;
- the at least one first track is structured so such that a file is recorded on the at least one first track **[149]**;

- the at least one second track is structured so such that a file structure which manages the file is recorded on the at least one second track [**“Basic file structure area”**];
- the volume space is structured such that a virtual allocation table structure which manages a recording location of the file structure is recorded on the volume space [**“VAT structure area”**];
- and the disk management information area is structured such that track management information which manages the at least one first track and the at least one second track is recorded in the disk management information area [**Space management area**].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW SASINOWSKI whose telephone number is (571)270-5883. The examiner can normally be reached on Monday to Friday, 7:30 to 5:00, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (571)272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HOA T NGUYEN/
Supervisory Patent Examiner, Art
Unit 2627

/ANDREW J SASINOWSKI/
Examiner, Art Unit 2627